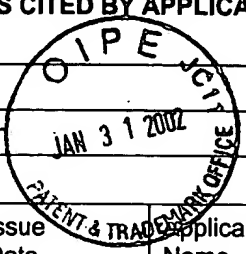


U.S. Department of Commerce, Patent and Trademark Office (PTO Form 1449 modified)					Document No. AMAT/5951		Serial No. 09/981,508	
LISTS OF PATENTS AND PUBLICATIONS CITED BY APPLICANT					Applicant Zheng, et al.			
(Use several sheets if necessary)					Filing Date October 16, 2001		Group Unknown	
Examiner Unknown								
U.S. Patent Documents								
Examiner Initial		Document Number	Issue Date	Applicant(s) Name	Class	Subclass	Filing Date If Appropriate	
UA.	A1	6,224,737	05/01/2001	Tsai, et al.	205	123	08/19/1999	
	A2	6,149,974	11/21/2000	Nguyen, et al.	427	255.29	05/05/1997	
	A3	6,133,619	10/17/2000	Sahota, et al.	257	649	08/31/1998	
	A4	6,071,814	06/06/2000	Jang	438	687	09/28/1998	
	A5	6,051,114	04/18/2000	Yao, et al.	204	192.3	06/23/1997	
	A6	6,048,445	04/11/2000	Brain	205	118	03/24/1998	
	A7	6,001,420	12/14/1999	Mosely, et al.	427	258	09/23/1996	
	A8	5,976,327	11/02/327	Tanaka	204	192.15	12/12/1997	
	A9	5,968,327	10/19/1999	Kobayashi et al.	204	298.11	02/12/1998	
	A10	5,966,634	10/12/1999	Imohara, et al.	438	687	03/25/1997	
	A11	5,933,753	08/03/1999	Simon, et al.	438	629	12/16/1996	
	A12	5,911,864	06/15/1999	Elridge	205	124	11/08/1996	
	A13	5,904,565	05/18/1999	Nguyen, et al.	438	687	07/17/1997	
	A14	5,863,392	01/26/1999	Drummond, et al.	204	192.12	05/05/1995	
	A15	5,858,184	01/12/1999	Fu, et al.	204	192.17	06/07/1995	
	A16	5,810,982	09/22/1998	Sellers	204	298.08	09/30/1996	
	A17	5,810,963	09/22/1998	Tomioka	156	345	09/27/1996	
UA.	A18	5,807,467	09/15/1998	Givens, et al.	204	192.12	01/22/1996	
Foreign Patent Documents								
Examiner Initial		Document Number	Date	Country	Class	Subclass	Translation	
							YES	NO
UA.	B1	0 892 428 A2	01/20/1999	EP	H01L	21/768	<input type="checkbox"/>	<input type="checkbox"/>
OTHER ART								
Examiner Initial		Including Author, Title, Date, Pertinent Pages, Etc.						
UA.	C1	L. J. Kochel, "Pressure control of rf bias for sputtering", Rev. Sci. Instrm., Vol. 47, No. 12 (December 1976), pp.1555-1557						
	C2	Suzuki, et al., "Microwave plasma etching", Pergamon Press Ltd., Vol. 34, No. 10/11 (1984) pp. 953-957 *						
UA	C3	Rossnagel, et al., Collimated magnetron sputter deposition with grazing angle ion bombardment', J. Vac. Sci Tech, Vol. 13, No. 1 (Jan/Feb 1995), pp. 156 - 158						
Examiner <i>Wesley J. Lee</i>					Date Considered 7/22/03			
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.								

* No month avail.

U.S. Department of Commerce, Patent and Trademark Office (PTO Form 1449 modified)				Docket No. AMAT/5951		Serial No. 09/981508	
LISTS OF PATENTS AND PUBLICATIONS CITED BY APPLICANT				Applicant Zheng, et al.		Filing Date October 16, 2001	
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U.S. Patent Documents							
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UA	A19	5,780,357	07/14/1998	Xu, et al.	438	639	06/02/1997
	A20	5,770,023	06/23/1998	Sellers	204	192.3	02/12/1996
	A21	5,759,906	06/02/1998	Lou	438	623	04/11/1997
	A22	5,744,376	04/28/1998	Chan, et al.	437	190	04/08/1996
	A23	5,731,245	03/24/1998	Joshi, et al.	438	705	10/28/1996
	A24	5,725,739	03/10/1998	Hu	204	192.3	07/08/1996
	A25	5,723,387	03/03/1998	Chen	438	692	07/22/1996
	A26	5,718,813	02/17/1998	Drummond, et al.	204	192.12	04/02/1993
	A27	5,693,563	12/02/1997	Teong	437	190	07/15/1996
	A28	5,662,788	09/02/1997	Sandhu, et al.	205	87	06/03/1996
	A29	5,651,865	07/29/1997	Sellers	204	192.13	06/17/1994
	A30	5,639,357	06/17/1997	Xu	204	192.3	05/12/1994
	A31	5,612,254	03/18/1997	Mu, et al.	437	195	06/29/1992
	A32	5,585,974	12/17/1996	Shrinkle	360	46	02/17/1995
UA	A33	5,585,673	12/17/1996	Joshi, et al.	257	751	11/22/1994
Foreign Patent Documents							
Examiner Initial		Document Number	Date	Country	Class	Subclass	Translation
UA	B2	0 798 778 A2	10/01/1997	EP	H04L	21768	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
OTHER ART							
Examiner Initial		Including Author, Title, Date, Pertinent Pages, Etc.					
UA	C4	Yasui, et al., "Electron cyclotron resonance plasma generation using a planar ring-cusp magnetic field and reentrant coaxial cavity", J. Vac. Sci. Tech., Vol. 13, No. 4 (July/August 1995), pp. 2105-2109					
	C5	Holber, et al., "Copper deposition by electron cyclotron resonance plasma", J. Vac. Sci. Tech., Vol. 11, No. 6 (Nov/Dec 1993), pp. 2903 - 2910					
	C6	Cheng, et al., "Directional deposition of Cu into semiconductor trench structures using ionized magnetron sputtering", J. Vac. Sci. Tech., Vol 13, No. 2 (Mar/Apr 1995), pp. 203-208					
UA	C7	P. Kidd, "A Magnetically confined and electron cyclotron resonance heated plasma machine for coating and ion surface modification use", J. Vac. Sci. Tech., Vol. 9, No. 3 (May/Jun 1991), pp. 466-473					
Examiner Wesley Starke					Date Considered 7/22/03		
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U.S. Department of Commerce, Patent and Trademark Office (PTO Form 1449 modified)				Doc. No. AMAT/5951		Serial No. 09/981 508	
LISTS OF PATENTS AND PUBLICATIONS CITED BY APPLICANT				Applicant Zheng, et al.			
(Use several sheets if necessary)				Filing Date October 16, 2001		Group Unknown	
Examiner Unknown				JAN 31 2002			
U.S. Patent Documents							
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UW.	A34	5,584,974	12/17/1996	Sellers	204	192.13	10/20/1995
	A35	5,510,011	04/23/1996	Okamura, et al.	204	192.3	12/22/1994
	A36	5,486,492	01/23/1996	Yamamoto, et al.	437	192	10/29/1993
	A37	5,376,584	12/27/1994	Agarwala	437	183	12/31/1992
	A38	5,346,600	09/13/1994	Nieh, et al.	204	192.3	08/14/1992
	A39	5,303,139	04/12/1994	Mark	363	63	07/30/1992
	A40	5,302,266	04/12/1994	Grabarz, et al.	204	192.12	09/25/1992
	A41	5,262,354	11/16/1993	Cote, et al.	437	195	02/26/1992
	A42	5,256,274	10/26/1993	Poris	205	123	11/22/1991
	A43	5,126,028	06/30/1992	Hurwitt, et al.	204	192.13	08/22/1990
UW.	A44	5,078,847	01/07/1992	Grosman, et al.	204	192.31	08/29/1990
Foreign Patent Documents							
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UW.	B3	0 788 160 A3	06/16/1999	EP	H04L	23/522	YES <input type="checkbox"/> NO <input type="checkbox"/>
OTHER ART							
Examiner Initial		Including Author, Title, Date, Pertinent Pages, Etc.					
UW.	C8	M. Yamashita, "Fundamental characteristics of built-in high-frequency coil-type sputtering apparatus", <i>J. Vac. Sci. Tech.</i> , 7(2) (Mar/Apr 1989), pp.151-158					
	C9	S. Samukawa, "Wave propagation and plasma uniformity in an electron cyclotron resonance plasma", <i>J. Vac. Sci. Tech.</i> , 11(5) (Sep/Oct 1993), pp. 2572-2576					
	C10	Apblett, et al., "Silicon nitride growth in a high-density plasma system", <i>Solid State Tech.</i> , (Nov. 1995), pp.73-74 & 78 and 80					
	C11	Suzuki, et al., "Microwave Plasma Etching". <i>J. App. Phys.</i> , 16(11) (Nov. 1977), pp.1979-1984					
	C12	Getty, et al., "Size-scalable 2.45 GHz electron cyclotron resonance plasma source using permanent magnets and waveguide coupling", <i>J. Vac. Sci. Tech.</i> , 12(1) (Jan/Feb 1994), pp. 408-415					
UW.	C13	Hamaguchi, et al., "Simulations of trench-illing pros les under ionized magnetron sputter metal deposition", <i>J. Vac. Sci. Tech.</i> , 13(2) (Mar/Apr 1995), pp. 183-191					
Examiner <i>Wesley J. Lee</i>					Date Considered <i>7/22/03</i>		
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U.S. Department of Commerce, Patent and Trademark Office (PTO Form 1449 modified)					Docket No. AMAT/5951		Serial No. 09/981,508	
LISTS OF PATENTS AND PUBLICATIONS CITED BY APPLICANT					Applicant Zheng, et al.			
(Use several sheets if necessary)					Filing Date October 16, 2001		Group Unknown	
Examiner Unknown					JAN 31 2002 PATENT & TRADEMARK OFFICE			
U.S. Patent Documents								
Examiner Initial		Document Number	Issue Date	Applicant(s) Name	Class	Subclass	Filing Date if Appropriate	
UW.	A45	4,999,096	03/12/1991	Nihei, et al.	204	192.3	06/29/1988	
	A46	4,963,239	10/16/1990	Shimamura, et al.	204	192.12	01/26/1989	
	A47	4,874,494	10/17/1989	Ohmi	204	192.12	06/06/1987	
	A48	4,874,493	10/17/1989	Pan	204	192.11	03/28/1988	
	A49	4,865,712	09/12/1989	Mintz	204	298	07/28/1987	
	A50	4,756,801	07/12/1988	Jokinen, et al.	162	175	10/24/1986	
UW.	A51	3,410,774	11/12/1968	Barson, et al.	204	192	10/23/1965	
	A52	09/360,883		Paterson, et al.			07/23/1999	
	A53	08/768,058		Ramaswami, et al.			12/16/1996	
	A54	09/449,202		Gopalraja			11/24/1999	
	A55	09/454,355		Forster			12/03/1999	
	A56	09/219,187		Sivaramakrishnan et al.			12/21/1998	
F Foreign Patent Documents								
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UW.	B4	0 297 502 A2	06/28/1988	EP	C23C	14/34	<input type="checkbox"/>	<input type="checkbox"/>
UW.	B5	0 123 456 A2	10/31/1984	EP	H04N	7/12	<input type="checkbox"/>	<input type="checkbox"/>
OTHER ART								
Examiner Initial		Including Author, Title, Date, Pertinent Pages, Etc.						
UW.	C14	"Endpoint Detection method for Ion Etching of a Material Having a titanium Nitride Underlayer", Research Disclosure, February 1991, No. 322, Kenneth Mason Publications Ltd, England						
	C15	Novellus Damascus Home Page, "12 Steps of Damascus" **						
	C16	S. Matsuo, "Reactive ion-beam etching and plasma deposition techniques using electron cyclotron resonance plasma," <i>Appl. Sol. State Sci</i> , Academic Press (1985), pp. 75-117 *						
	C17	Gorbatkin, et al., "Cu metallization using a permanent magnet electron cyclotron resonance microwave plasma sputtering hybrid system", <i>J. Vac. Sci. Tech</i> , 14(3) (May/Jun 1996), pp.1853-1859						
	C18	Park, et al., "A novel A-1 reflow process using surface modification by the ECR plasma treatment and its application to the 256Mbit DRAM, <i>IEDM 94</i> , 109-112, pp.5.4.1 - 5.5.5 (1994) *						
UW.	C19	Koenig, et al., "RF sputtering system with a variable substrate bias, <i>IBM Tech, Discl. Bull</i> 13(2) (July 1970), pp. 323-324						
Examiner Hesley					Date Considered 7/22/03			
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.								

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U.S. Department of Commerce, Patent and Trademark Office (PTO Form 1449 modified)		Docket No. AMAT/5951/CPI/ COPPER/PJS		Serial No. 09/981,508	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		Applicant Zheng et al.		Confirmation No. 6901	
Examiner Unknown		Filing Date October 16, 2001		Group 2811	

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U.S. Patent Documents

*Examiner Initial		Document Number	Issue Date	Applicant(s) Name	Class	Subclass	Filing Date If Appropriate
LM	A1	6,432,821	08-13-2002	Dubin et al.	438	678	12-18-2000
	A2						
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Foreign Patent Documents

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	C1	
	C2	
	C3	

Examiner <i>Wesley A. 102</i>	Date Considered <i>7/22/03</i>
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